

Title (en)
ELECTRIC GRILL WITH CURRENT PROTECTION CIRCUITRY

Title (de)
ELEKTRISCHER GRILL MIT STROMSCHUTZSCHALTUNG

Title (fr)
GRILL ÉLECTRIQUE AVEC CIRCUIT DE PROTECTION DE COURANT

Publication
EP 3273558 A2 20180124 (EN)

Application
EP 17179223 A 20170701

Priority
US 201615200687 A 20160701

Abstract (en)
Provided is an apparatus and method for protecting against unsafe electric current conditions. A protections circuit (100) may be used in a device, such as an electric grill, that has one or more electric loads, such as heating elements (103, 104). The protection circuit may protect against various failure scenarios, including, without limitation, instances of ground fault, over current, driver failure, and failure of a microprocessor. In response to a failure, the protection circuit may trip a latch relay (106, 107) or disable a triac driver (108, 109) to stop current from flowing. Fig. 2

IPC 8 full level
H02H 3/10 (2006.01); **G05D 23/00** (2006.01); **H02H 3/16** (2006.01); **H02H 3/32** (2006.01); **H05B 1/02** (2006.01); **H02H 3/04** (2006.01)

CPC (source: CN EP US)
A47J 37/0676 (2013.01 - EP US); **A47J 37/07** (2013.01 - US); **A47J 37/0709** (2013.01 - EP US); **H02H 1/0007** (2013.01 - US); **H02H 3/08** (2013.01 - US); **H02H 3/105** (2013.01 - CN EP US); **H02H 3/167** (2013.01 - EP US); **H02H 3/32** (2013.01 - CN EP US); **H05B 1/0261** (2013.01 - EP US); **H05B 1/0266** (2013.01 - US); **H02H 3/04** (2013.01 - EP US)

Citation (applicant)
• US 8263911 B2 20120911 - YEN HUNG-WEI [TW]
• US 8097835 B2 20120117 - HSIEH MING-CHIH [TW]

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EP3690464A1; US12035725B2; US12070042B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3273558 A2 20180124; **EP 3273558 A3 20180425**; **EP 3273558 B1 20240501**; AU 2017204387 A1 20180118; AU 2017204387 B2 20181213; AU 2019201672 A1 20190404; AU 2019201672 B2 20200604; AU 2020202616 A1 20200514; AU 2020202616 B2 20211216; CA 2971815 A1 20180101; CA 2971815 C 20210105; CL 2017001748 A1 20171229; CN 107565511 A 20180109; CN 107565511 B 20200114; CN 110880738 A 20200313; CN 110880738 B 20220322; DK 3273558 T3 20240527; JP 2018007549 A 20180111; JP 2019216597 A 20191219; JP 2022037108 A 20220308; JP 6568150 B2 20190828; JP 6995803 B2 20220117; US 10524312 B2 20191231; US 11622420 B2 20230404; US 2018007738 A1 20180104; US 2020084837 A1 20200312; US 2023209659 A1 20230629

DOCDB simple family (application)
EP 17179223 A 20170701; AU 2017204387 A 20170628; AU 2019201672 A 20190312; AU 2020202616 A 20200417; CA 2971815 A 20170623; CL 2017001748 A 20170630; CN 201710521319 A 20170630; CN 201911342769 A 20170630; DK 17179223 T 20170701; JP 2017128811 A 20170630; JP 2019142088 A 20190801; JP 2021202976 A 20211215; US 201615200687 A 20160701; US 201916688354 A 20191119; US 202318176160 A 20230228